

Appl. No. 10/087,142 (Docket 093/005)  
Amdt. dated May 15, 2006  
Reply to Office Action of February 13, 2006

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

What is claimed as the invention is:

1. – 12. *(Canceled)*
13. *(Currently amended)* A method for obtaining hepatocyte lineage cells, comprising culturing pPS cells in a growth environment that comprises butyrate or an analog of butyrate and also comprises one or more hepatocyte maturation factors that are either:
  - a) an organic solvent selected from dimethyl sulfoxide (DMSO), dimethylacetamide (DMA); hexamethylene bisacetamide, and other polymethylene bisacetamides; or
  - b) a cytokine or hormone selected from glucocorticoids, epidermal growth factor (EGF), insulin, TGF- $\alpha$ , TGF- $\beta$ , fibroblast growth factor (FGF), hepatocyte growth factor (HGF), IL-1, IL-6, IGF-I, IGF-II, and HBGF-1.
14. – 20. *(Canceled)*
21. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises DMSO.
22. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises a cytokine.
23. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises HGF.
24. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises insulin.
25. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises FGF.

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26. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises dimethylacetamide.
27. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises hexmethylen bisacetamide.
28. *(Previously Presented)* The method of claim 13, wherein the growth environment comprises EGF.